

Abstract Of the Disclosure

A rotor position dependent saliency in a sensorless control electric drive machine (9) introduces a plurality of sensing slots (16) to the outer periphery of a rotor (10). The number, depth, width and location of the sensing slots (16) is chosen to, either directly or through combination with the stator slots (20), create a desired saliency. The use of separate sensing slots (16) results in an effective decoupling between the sensing and torque producing functions in an electric drive motor (9), thereby significantly reducing the potential for ripple torque, cogging torque, or saturation effects. These sensing slots (16) do not have to be skewed if the rotor bars (14) contained within the rotor (10) are skewed; instead they remain parallel to the stator slots (20), resulting in a much larger saliency magnitude.